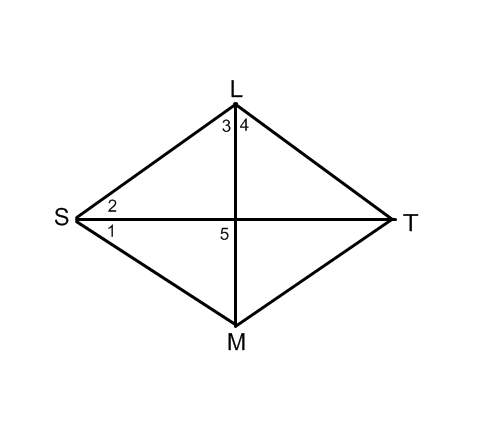
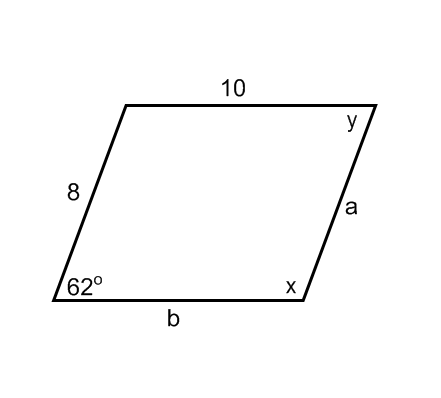
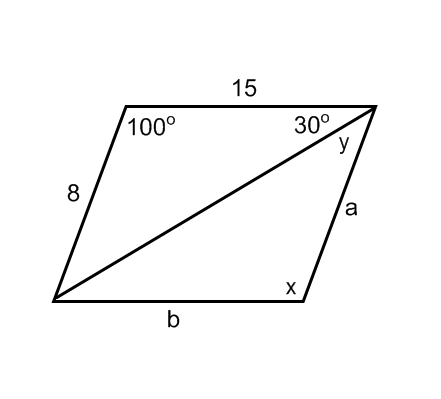
Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_ Per.: \_\_\_\_\_\_\_\_

**4.4 Applying the Properties of Quadrilaterals**

1. Place a check in the columns for which the property is **always** true:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Property | Parallelogram | Rectangle | Rhombus | Square |
| Opp. sides parallel. |  |  |  |  |
| Opp. sides congruent. |  |  |  |  |
| Opp. angles congruent. |  |  |  |  |
| Diag. bisect each other. |  |  |  |  |
| All angles are congruent. |  |  |  |  |
| All sides are congruent. |  |  |  |  |
| Diag. are congruent. |  |  |  |  |
| Diag. are perpendicular. |  |  |  |  |
| Diag. bisect the angles. |  |  |  |  |
| Diag. create 4 congruent triangles. |  |  |  |  |

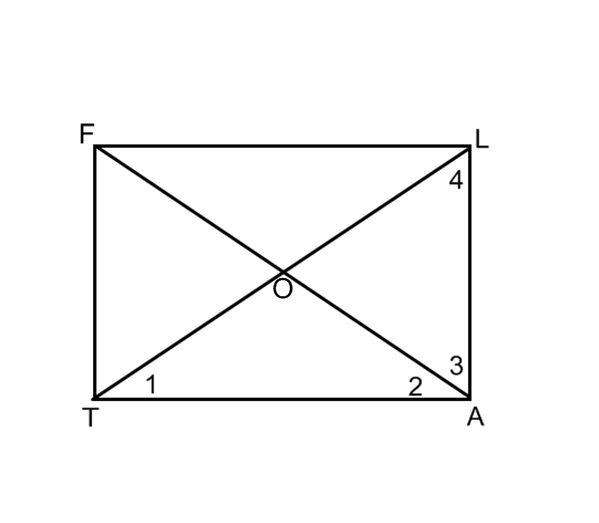
2. The following are **parallelograms**. Find the values of **a**, **b**, **x**, and **y**.

3. Quadrilateral SLTM shown right is a rhombus.

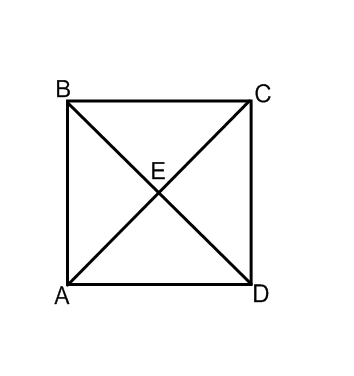
a. If m1 = 25, find the measures of 2, ∠3, 4, and 5.

b. If SL = 10, find the lengths of , , and .

4. Quadrilateral FLAT is a rectangle with diagonals intersecting at O.

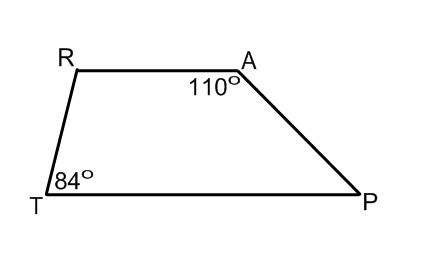
a. If m∠1 = 18, find the measures of ∠2, ∠3, and ∠4.

b. If FA = 27, find LO.

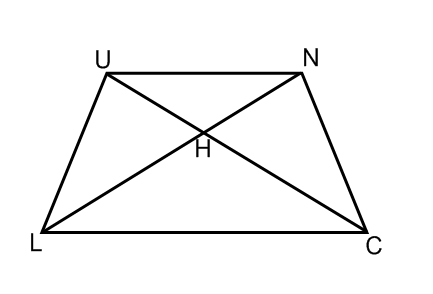
5. Quadrilateral ABCD is a square with diagonals intersecting at E.

a. Find the measures of all of the angles in the diagram.

b. If AB = , find the lengths of  and .

6. Quadrilateral TRAP is a trapezoid. Find the measures of and .

7. Quadrilateral LUNC is an isosceles trapezoid with diagonals intersecting at H. If

  and , find the measures of the remaining angles in the diagram.